



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/642,190	08/18/2000	Chul-Woo Park	40164/DBP/Y35	6792

23363 7590 03/10/2004

CHRISTIE, PARKER & HALE, LLP  
350 WEST COLORADO BOULEVARD  
SUITE 500  
PASADENA, CA 91105

EXAMINER

PATEL, ASHOK

ART UNIT PAPER NUMBER

2879

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/642,190

Applicant(s)

PARK ET AL.

Examiner

Ashok Patel

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2879

1. Applicant's arguments filed 11/24/2003 have been fully considered but they are not persuasive.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Mohri et al (U.S. Patent 5,643,034).

Regarding claims 1 and 13, Mohri disclose (fig 1-3) a vacuum fluorescent display with a pair of substrates (15, 16) spaced apart from each other with a predetermined distance, forming a vacuum cell by interposing a side glass, a plurality of filaments (12) mounted within the vacuum cell to emit thermal electrons under the application of voltage, a plurality of anode electrodes (4) formed at one of the substrates, each anode having a conductive layer (4), a phosphor layer (5) and a control electrode (7) surrounding each anode electrode, the control electrode is formed with a single-layered structure and

Art Unit: 2879

is positioned directly on an insulating layer (6) on one of the pair of substrates (column 4, lines 1-3).

Regarding claims 2 and 14, Mohri disclose the control electrode is formed with a metallic material having a high electrical conductivity (column 11, lines 15-33).

Regarding claims 3 and 15, Mohri discloses the control electrode is formed with a metallic material selected from the group consisting of stainless steel, platinum, silver and copper (column 11, lines 15-33).

Regarding claims 4 and 16, Mohri discloses each anode electrode is formed with a plurality of segments, and the control electrode surrounds each segment of each anode (fig 2).

Regarding claim 5, Mohri discloses (fig 2) the control electrode (7) is formed with a unitary part.

Regarding claim 6, Mohri discloses the control electrode comprises a main control part (7) and a subsidiary control part (9).

Regarding claim 7, Mohri discloses (fig 8) the main control pad surrounds each segment of each anode and the subsidiary control part is formed at a top end portion of the main control pad with a unitary part.

Regarding claim 8, Mohri discloses (figs 8, 9) the subsidiary control pad is formed with an extension where the top end portion

Art Unit: 2879

of the main control pad is extended towards each segment of the anode perpendicular to the main control part.

Regarding claim 9, Mohri discloses (fig 8) the subsidiary control part is formed with a connector, the connector interconnecting top ends of the main control part such that the connector crosses each segment of the anode electrode.

Regarding claim 10, Mohri discloses (fig 8) a subsidiary control electrode (9) surrounding the control electrode.

Regarding claim 11, Mohri discloses (fig 8) the subsidiary control electrode is formed with a mesh grid.

Regarding claim 12, Mohri discloses the control electrode and subsidiary are provided at some of the plurality of anode electrodes.

The Examiner responds to applicant's arguments as follows.

Applicants argue (at page 6, last paragraph) that control electrodes in Mohri et al's device are two layered, not single layered. The Examiner disagrees with applicants since the control electrode (7) in Mohri et al's device (Figure 3) is positioned directly on an insulating element (rib 6). And the insulating element (6) is positioned on a substrate (1) (via another insulating element 2). The control electrodes (7) are separate from the insulating layer (element 6).

Art Unit: 2879

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok Patel whose telephone number is 571-272-2456. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 2879

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.



Ashok Patel  
Primary Examiner  
Art Unit 2879